

540,986

10/540986

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
5 August 2004 (05.08.2004)

PCT

(10) International Publication Number
WO 2004/065134 A2

(51) International Patent Classification⁷: **B42D 15/00**, G03F 3/00, C09D 11/00

(21) International Application Number: **PCT/EP2003/010614**

(22) International Filing Date: 24 September 2003 (24.09.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 03001013.6 17 January 2003 (17.01.2003) EP

(71) Applicant (*for all designated States except US*): **SICPA HOLDING S.A. [CH/CH]**; Avenue de Florissant 41, CH-1008 Prilly (CH).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **MÜLLER, Edgar [CH/CH]**; 7, rue P.-A. de Faucigny, CH-1700 Fribourg (CH). **TILLER, Thomas [DE/CH]**; Chemin du Cèdre 21, CH-1030 Bussigny (CH). **MARGUERETTAZ, Xavier [CH/CH]**; Chemin de Broye 13, CH-1020 Renens (CH).

(74) Agents: **HEPP, Dieter et al.**; Hepp Wenger Ryffel AG, Friedtalweg 5, CH-500 Wil (CH).

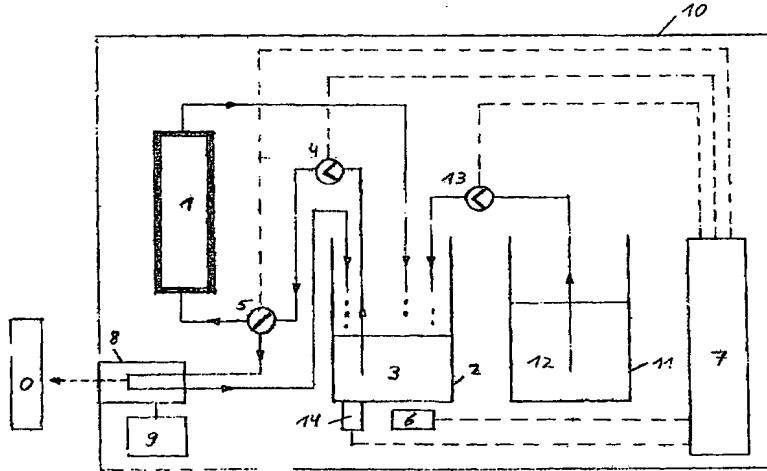
(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: METHOD, DEVICE AND SYSTEM FOR THE TEMPORARY MARKING OF OBJECTS

WO 2004/065134 A2

(57) **Abstract:** The invention concerns a method, a device and a system for applying a detectable temporary mark of predefined life time of minutes to hours onto an object (O). The invention also concerns a coating composition comprising a short-lived radioactive isotope and the use of a short-lived radioactive isotope as a temporary marking. The temporary mark is applied to the object (O) by the means of a coating composition (3) comprising a low level of a short-lived radionuclide, generated in situ from a longer-lived precursor nucleus. The marking device comprises a radionuclide generator (1), a reservoir (2) for the in situ preparing the radioactively marked printing ink, and an ink-jet or alike printing or spraying head (8), preferably of the drop-on-demand type. The marking is preferably detected and identified by a gamma-radiation counter. The invention claims also a system for the temporary marking of an object (O) with a radioactive isotope of predefined life time of minutes to hours, in view of performing an operation on the marked object (O) at a later point in time.